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10/829,548	04/22/2004	Igor Cadcz	MS149546.02 / MSFTP288USA	7288

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EXAMINER
ULRICH, NICHOLAS S

ART UNIT	PAPER NUMBER
2173	

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07/20/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/829,548	CADEZ ET AL.
	Examiner	**Art Unit**	
	Nicholas S. Ulrich	2173	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>22 April 2004</u>.

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>28-57</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>28,29,41-46,48,50 and 54-57</u> is/are rejected.

7) ☐ Claim(s) <u>30-40,47,49 and 51-53</u> is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>22 April 2004</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>7/07/2004</u>.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 28-57 are pending.

2.   Claims 28-57 have been added.

3.   Claims 1-27 have been cancelled.

4.   The information disclosure statement (IDS) submitted on 7/07/2004 is in

compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure

statement is being considered by the examiner.

Claim Rejections - 35 USC § 101

        35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

5.   Claim 55 rejected under 35 U.S.C. 101 because the claimed invention is directed

to non-statutory subject matter. For an invention to fall within one of the categories of

statutory subject matter it must be a process, machine, manufacture or composition of

matter. A data packet, as discussed in claim 55, does not fall within one of these four

categories of patentably subject matter.

/

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6.   Claims 28, 29, 41, 43, 55, 56, and 57 are rejected under 35 U.S.C. 102(b) as

being anticipated by Wu et al. (IBM Systems Journal, Vol 37, No 1: SpeedTracer: A

Web usage mining and analysis tool).

In regard to **claim 28**, Wu discloses a system that visualizes web site activity

traffic, comprising:

a monitoring component that obtains information related to users browsing a web

site *(Pg 89 paragraph 1 lines 11-12, Pg 93 paragraph 1 lines 12-15)*;

a component that analyzes the information and parses the users into one or

more groups based on the analyzed information *(Pg 89 paragraph 1 lines 15-18 and*

line 24, Pg 95 paragraph 3 lines 3-5, Pg 102 paragraph 2 lines 1-9, and Figure 10:

Throughout the article Wu discusses the use of data mining to find browsing patterns.

Wu goes on to discuss grouping similar browsing patterns and provides an example

report illustrating the findings in fig 10);

and a visualization component that graphically presents user browsing

information in one or more windows within a display screen, the one or more windows

correspond to the one or more user groups, respectively, and the browsing information

displayed within a window corresponds to the group associated with the window *(Pg*

101 figure 10, Pg 102 figure 11, and pg 103 figure 12: Three example reports

demonstrated by WU, that show user traversal paths separated into groups that

represent the traversal paths of the given users in a group).

In regard to **claim 29**, Wu discloses the groups are defined via a non-restrictive

and/or a non-limiting set of similar items that are associated with one another based on

one or more common or similar characteristics *(Pg 101 figure 10, Pg 102 figure 11, and*

pg 103 figure 12: Three example reports demonstrated by WU, that show user traversal

paths separated into groups that represent the traversal paths of the given users in a

group. The common characteristic is the same traversal path through a web site).

In regard to **claim 41**, Wu discloses the windows are sorted by a number of

users within the group associated with the windows *(Pg 101 figure 10, Pg 102 figure 11,*

and pg 103 figure 12: Three example reports demonstrated by WU, that show user

traversal paths separated into groups that represent the traversal paths of the given

users in a group. The reports list most frequent paths indicating the number of users

and also starting with the largest group and moving down to the smallest).

In regard to **claim 43**, Wu discloses the respective windows change size in order

to display more rows within a visible region of the windows *(Pg 101 figure 10, Pg 102*

figure 11, and pg 103 figure 12: Three example reports demonstrated by WU, that

show user traversal paths separated into groups that represent the traversal paths of

the given users in a group. As we can see in the windows of the reports, the windows

sizes are changed based on the amount of user traversal paths shown).

In regard to **claim 55**, Wu discloses a data packet transmitted between two or

more computer components that facilitates visualizing web site activity, comprising:

a plurality of clusters that respectively include users with similar browsing

behavior and web pages visited by the users, wherein the information within the plurality

of clusters is displayed in windows, based on respective clusters, of a display and the

web page information is partitioned into units associated with individual user *(Pg 101*

figure 10, Pg 102 figure 11, and pg 103 figure 12: Three example reports demonstrated

by WU, that show user traversal paths separated into groups that represent the

traversal paths of the given users in a group).

In regard to **claim 56**, method claim 56 corresponds generally to system claim 28

and recites similar features in method form, and therefore is rejected under the same

rationale.

In regard to **claim 57**, Wu discloses a system that facilitates visualizing web site

activity, comprising:

means for clustering web site activity by web site user behavior *(Pg 91 paragraph 6 lines 3-4: As previously discusses in rejection of independent claim 28, Wu discusses the use of data mining techniques. Wu further discusses the use data mining techniques to cluster users)*;

means for displaying the clustered activity in respective windows *(Pg 101 figure 10, Pg 102 figure 11, and pg 103 figure 12: Three example reports demonstrated by WU, that show user traversal paths separated into groups, each with their own respective box, that represent the traversal paths of the given users in a group)*;

and means for presenting web pages accessed by the users of the web site within a respective windows based on similar behavior *(Pg 101 figure 10, Pg 102 figure 11, and pg 103 figure 12: Three example reports demonstrated by WU, that show user traversal paths separated into groups, each with their own respective box, that represent the traversal paths of the given users in a group)*.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7.   Claims 42, 44, 45, 46, 48, 50, and 54 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Wu et al. (IBM Systems Journal, Vol 37, No 1: SpeedTracer: A

Web usage mining and analysis tool).

In regard to **claim 42**, While Wu discloses using data mining techniques for

grouping users; Wu fails to explicitly disclose utilizing an expectation-maximization

algorithm.

However, as the Applicant admits in the specification on page 8, lines 14-20 that

expectation-maximization algorithm is well known in the art. Therefore it would have

been to one of ordinary skill in the art at the time the invention was made to use

expectation-maximization algorithm with Wu's invention in order to create clusters using

expectation-maximization algorithm.

In regard to **claim 44**, Wu fails to explicitly disclose using scroll bars to navigate

through the windows. However, to those skilled in the art at the time of invention, scroll

bars were well known. Therefore it would have been obvious to include scroll bars with

Wu's invention. The motivation would be to provide the ability for the user to review
information that is not currently in view within a window.

In regard to **claim 45**, Wu discloses a method that displays web traffic,
comprising:

receiving web site user clusters, respective clusters include information related to
one or more web pages accessed by one or more users who display similar web
browsing characteristics *(Pg 91 paragraph 6 lines 3-4: As previously discusses in
rejection of independent claim 28, Wu discusses the use of data mining techniques. Wu
further discusses the use data mining techniques to cluster users)*;

creating individual graphical user interfaces for each cluster *(Pg 101 figure 10,
Pg 102 figure 11, and pg 103 figure 12: Three example reports demonstrated by WU,
that show user traversal paths separated into groups, each with their own respective
box, that represent the traversal paths of the given users in a group)*;

and visualizing the cluster information within one or more rows, based on the
user, of an associated graphical user interfaces *(Pg 101 figure 10, Pg 102 figure 11,
and pg 103 figure 12: Three example reports demonstrated by WU, that show user
traversal paths separated into groups that represent the traversal paths of the given
users in a group)*.

Wu fails to explicitly disclose using zero-order and first-order Markov models.
However, as the Applicant admits in the specification on page 8, lines 14-20 that
Markov models including first-order and zero-order are well known in the art. Therefore

it would have been to one of ordinary skill in the art at the time the invention was made

to use Markov first-order and zero-order models with Wu's invention in order to create

clusters using zero-order and first-order Markov models.

In regard to **claim 46**, Wu discloses the clusters are defined via a non-restrictive

and/or a non-limiting group of similar items *(Pg 101 figure 10, Pg 102 figure 11, and pg*

103 figure 12: Three example reports demonstrated by WU, that show user traversal

paths separated into groups that represent the traversal paths of the given users in a

group. The similar items are the same traversal paths through a web site).

In regard to **claim 48**, Wu discloses further comprising delineating the one or

more rows into one or more units that respectively store the web page information *(Pg*

101 figure 10, Pg 102 figure 11, and pg 103 figure 12: Three example reports

demonstrated by WU, that show user traversal paths separated into groups that

represent the traversal paths of the given users in a group. Web page URL's are listed

one by one in rows).

In regard to **claim 50**, Wu discloses a method for displaying web site user activity

according to web site behavior, comprising:

cluster web site users by browsing behavior *(Pg 91 paragraph 6 lines 3-4: As*

previously discusses in rejection of independent claim 28, Wu discusses the use of data

mining techniques. Wu further discusses the use data mining techniques to cluster users);

and displaying user web site activity by visualizing information related to web pages accessed by users with similar behavior in fields displayed a window *(Pg 101 figure 10, Pg 102 figure 11, and pg 103 figure 12: Three example reports demonstrated by WU, that show user traversal paths separated into groups that represent the traversal paths of the given users in a group).*

Wu fails to explicitly disclose utilizing an expectation-maximization algorithm. However, as the Applicant admits in the specification on page 8, lines 14-20 that expectation-maximization algorithm is well known in the art. Therefore it would have been to one of ordinary skill in the art at the time the invention was made to use expectation-maximization algorithm with Wu's invention in order to create clusters using expectation-maximization algorithm.

In regard to **claim 54**, Wu discloses further comprising ordering the windows by a number of users within a cluster *(Pg 101 figure 10, Pg 102 figure 11, and pg 103 figure 12: Three example reports demonstrated by WU, that show user traversal paths separated into groups that represent the traversal paths of the given users in a group. The groups are listed by the number of users contained in the groups).*

Allowable Subject Matter

7.   Claims 30-40, 47, 49, and 51-53 are objected to as being dependent upon a

rejected base claim, but would be allowable if rewritten in independent form including all

of the limitations of the base claim and any intervening claims.

Reasons for Allowable Subject Matter

8.   Claim 30 is directed toward browsing information displayed in a window is

delineated by user into one or more rows. Wu discloses windows that display browsing

information of a group of users. Wu does not discuss displaying each users browser

information independently on rows of the window. Wu actually groups users based on

identical browsing paths and only displays a count of the number of users that took the

same path. No where does Wu teach or suggest displaying each user traversal path

independently on separate rows as disclosed in claim 30. There is no prior art of record

or prior art cited in this office action worth mentioning that may overcome the allowability

of claim 30.   Dependent claims 31-40 are allowable because of their dependency on
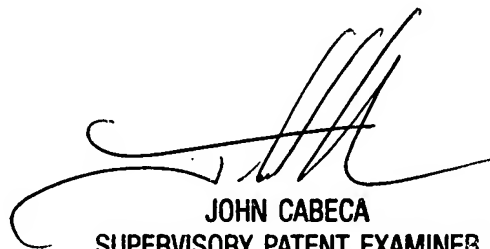
claim 30.

Conclusion

9.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Nicholas S. Ulrich whose telephone number is 571-270-

1397. The examiner can normally be reached on M-TH 9:00 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, John Cabeca can be reached on 571-272-4048. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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